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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,215	05/23/2000	Edward B. Boden	END9 1999 0129 US1	4856
7590	12/30/2005			
IBM Corporation Dept. 917 3605 Highway 52 North Rochester, MN 55901-7829			EXAMINER SON, LINH L D	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/578,215

Applicant(s)

BODEN ET AL.

Examiner

Linh LD Son

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responding to the Amendment received on 08/31/05.
2. Claims 1-22 are pending.
3. Applicant has amended claims 8-11, 12, 16, 17, and 21 and overcame the 35 U. S. C. 101 rejection basis of descriptive material without being implemented in a computer medium hardware. However, upon reexamination of the claims, a new ground of 35 USC § 101 rejection basis brings the claims 8-10 back to a non-statutory status. See the rejection basis below.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The claimed invention is directed to non-statutory subject matter. Claims 8-10 recites a method for allowing the definition and configuration of NAT. The policy configuration and IP address pool configuration does not produce a “useful, concrete and tangible result.” In order to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at

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1373-74, 47 USPQ2d at 1601-02. The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1, 12, 13, 16, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella et al (US-6353614), hereinafter "Borella", in view of Jain et al (US-6047325), hereinafter "Jain"
8. As per claims 1, 12, 13-16, 18, 19, 20 and 22, the previous office action rejection basis is maintained. Further, the implementation of NAT with VPN connection has also been considered in Borella invention (Col 16 lines 20-23). For more, Jain teaches the VPN connection setup utilizing the DHCP servers to assign IP address (Col 5 lines 13-39). Therefore, it would be obvious at the time of the invention was made for one having ordinary skill in the art to incorporate Borella's Network Address Translation method with Jain's VPN connection method to provide a secure connection over the Internet or Intranet. Since, Borella anticipated the implementation of NAT with VPN, the incorporating NAT with VPN would provide a double layers of security to the user. Further, Jain's invention utilizes DHCP servers. The incorporation of NAT in Jain's DHCP server would allow the VPN connection to be executed on one end of the connection (Borella, Col 16 lines 20-23, and Jain (Col 5 lines 13-40).
9. As per claims 14 and 15, Claim 1 rejection basis is incorporated. Further, Borella does teach the implementation of NAT with VPN in (Col 16 lines 20-23). Therefore, the ICMP layer (Col 5 lines 5-14 and FTP (Col 2 lines 22-28) implementation in NAT can also be implemented in the VPN NAT environment.

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10. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella et al (US-6353614) in view of Jain et al (US-6047325), and further in view of Arrow (US-6226751).
11. As per claims 2-7, the previous written action rejection basis is maintained and further is incorporated the obviousness rejection of claim 1. Claims 2-7 are rejected.
12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow (US-6226751).
13. As per claim 11, Arrow discloses method of providing customer tracking of VPN NAT activities (Col 10 lines 17-20) as they occur in an operating system kernel (Col 9 lines 35-40 and Col 10 lines 32-43). However, Arrow does not directly disclose the steps of: responsive to VPN connection configuration, generating journal records', updating said journal', records with new records for each datagram processed through a VPN connection', and enabling a customer to manage said journal records. Nevertheless, Col 10 lines 17-20 teach the use of the Simple Network Management Protocol to get the traffic statistics. It is obvious at the time of the invention was made for one of ordinary skill in the art to recognize that the same protocol includes the claim feature completely.

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14. Claims 8-11, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allied Telesyn, NAT, GRE, and Security Associations, May 1998, Page 1-5, hereinafter "AT"
15. As per claims 8, 17, and 21, AT discloses "A method for allowing the definition and configuration of NAT directly with definition and configuration of Ipsec-based VPN connections and VPN policy, comprising the steps executed by a digital processor at one end of a VPN connection" on Page 1, 1st paragraph, "of configuring the requirement for VPN NAT by a yes/no decision in a policy for each of the three types of VPN NAT" on Page 2 (configuring the encryption key for VPN connection), and Page 3 #5, and "configuring a remote IP address pool or a server IP address pool selectively responsive to said yes/no decision for each said VPN NAT type" on Page 3 #12-13. However, AT does not explain clearly the said three types being VPN NAT type a outbound source IP NAT, VPN NAT type c inbound source IP NAT, and VPN NAT type d inbound destination IP NAT. Nevertheless, It would be obvious at the time of the invention was made for one having ordinary skill in the art to realize that the configuration script for either Router A on page 3 and Router B on page 4 does teach the three types VPN NAT claimed since one end of the connection has NAT association with security policy set and further the outbound destination is a network address translation (NAT) destination (Page 3-4 # 15-16, and Page 5 #15-16. "The type a outbound source IP NAT, VPN NAT type c inbound source IP NAT" is implied on page 3-4 #10-16, and Page 4-5 #10-16, and "VPN NAT

type d inbound destination IP NAT” is implied on page 3-4 lines 10-16. In addition, AT is silent on the policy database for each type of VPN NAT. Nevertheless, AT does disclose a method to enable GRE for the both LAN connections on page 3 #7-8, and Page 4 #7-8 for the inbound and outbound connection security policies. Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to realize that the policy database must exist, because the configuration scripts does not restrict to only one LAN VPN connection. Thus, a multiple LAN VPN connection will requires multiple scripts policy database to configure for each connection.

16. As per claim 9-10, AT discloses “the method of claim 8, further comprising the step of configuring a unique said remote IP address pool for each remote address to which a VPN connection will be required, whereby said remote IP address pool is keyed by a remote ID” on page 3 #12-13, and #7.
17. As per claim 11, AT discloses “A method of providing customer tracking of VPN NAT activities as they occur in an operating system kernel, comprising the steps executed at one end of a VPN connection of: responsive to VPN connection configuration, generating journal records; updating said journal records with new records for each datagram processed through a VPN connection; and enabling a customer to manage said journal records” on Page 3 #11.

Response to Arguments

18. Applicant's arguments filed 08/31/05 have been fully considered but they are not persuasive.
19. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Summary and comparison of the Art cited on page 22-30) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
20. As per remark on page 22-30, Applicant repeatedly argue that "The current invention does not use "translates ports", "PNAT", "DNAT", "translate IP address based on MAC addresses", "PAP (Port Allocation Protocol)", and more .. ". However, nowhere in the language of any claims recites limitation that would restrict the implementation of a particular technology to carry out the invention. Examiner reminds the Applicant that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
21. In response to applicant's arguments, the recitation ("the steps executed at one end..." in claims 1, 8, 11-17, and 20) has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process

or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

22. As per remark on page 26, Applicant argues that “Jain does not use IKE to automatically generate security associations”. Nevertheless, the language of claim 21 recites “dynamically generating NAT rules and associating them with manual or dynamically generated (IKE) Security Associations”. Notice the limitation does not restrict to IKE security Associations only. The rejection basis of claim 17 would also be applied to reject to claim 21, which includes a manual encryption key to configure the VPN connection. The manual encryption key configuration is disclosed in AT reference on (page 2). Please refer to the rejection in Paragraph 14 above.
23. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “The AT reference does not utilize, and the integration of NAT with IKE and ... is the whole point of the present invention” on page 40-41 in regard to claim 8-11, and 17) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, IP Sec-based VPNs can also be configured using manual keying association in both end of the connection, which is disclosed in AT reference on page 2.

24. In response to applicant's argument in the last paragraph of page 38, that "Arrow (Col 10, lines 17-20) does not "generate journal records responsive to VPN connection" as stated in claim 11." Examiner disagrees. (Col 10, lines 17-20) clearly discloses that "Simple Network Management Protocol SNMP module 720 gathers information and statistics from IP stack 712 that a system administrator might be interested in, such as communication traffic statistics". The communication traffic statistics here is referring to the VPN connection IP stack as disclosed in Arrow's invention. One ordinary skill in the art would recognize that the implementation of SNMP is common in the art to gather the statistical data in real time for administration purpose. Therefore, the statistical data is journal records responsive to VPN connection as claimed.

25. In response to applicant's argument in the last paragraph of page 41, that "the items 11-14 on page 3-4 and pages 4-5 have nothing at all to do with VPN NAT type a or type c". Correction, the VPN NAT type a or type c is actually disclosed in the items 11-16 on page 3-4 and pages 4-5. AT clearly discloses the configuration of the VPN NAT connection in the configuration script for both Router A and B in item 11-16. Particularly, in item 16 AT implements the "add ip

nat ip=10.1.1.0 mask=255.255.255.0 gblip=202.45.12.8" to route the inbound traffic from the router 202.45.12.8 to the NAT ip destination 10.1.1.0/24 segment (type c and d) and to route the outbound traffic from 10.1.1.0/24 NAT segment to the gateway router 202.45.12.8 (type a). Similar configuration is also carried out in router B on pages 4-5. Therefore, AT clearly discloses the VPN NAT type a outbound source IP NAT, the VPN NAT type c inbound source IP NAT, and the VPN NAT type d inbound destination IP NAT.

26. In response to applicant's argument in the 3rd paragraph of page 43, that "The Examiner then states, "... AT does discloses a method to enable GRE for ...". Yes AT use generic routing encapsulation. (It is not specified at what RFC level; most likely it is RFC1702 since RFC2784 wasn't published until 2000, and the AT document is dated May 1998.)". Examiner does not agree with the Applicant. The fact that the date May 1998 of AT reference is enough to show the priority of teaching, which fully discloses the claimed invention of claims 8-11, 17, and 21 as admitted by the applicant above.
27. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.
28. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present

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in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

29. In response to applicant's arguments against the references individually on page 20-30, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references (Remarks on page 31-32). See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh LD Son whose telephone number is 571-272-3856. The examiner can normally be reached on 9-6 (M-F).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Linh LD Son
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